THE FIRST AUSTRALIAN RECORD OF CEPHRENES MOSELEYI (BUTLER) (LEPIDOPTERA: HESPERIIDAE) FROM TORRES STRAIT, QUEENSLAND

TREVOR A. LAMBKIN1 and A. IAN KNIGHT2

¹Entomology Building, Queensland Department of Primary Industries and Fisheries, 80 Meiers Road, Indooroopilly, Qld 4068 (Email: Trevor.Lambkin@dpi.qld.gov.au)

²70 Exton Road, Exton, Tas 7303

Abstract

Cephrenes moseleyi (Butler) is newly recorded from Saibai and Dauan Islands, Torres Strait, Queensland. Male and female specimens are illustrated, the species' identification discussed and field observations provided.

Introduction

The genus *Cephrenes* Waterhouse & Lyell is a predominately tropical group of skipper butterflies that occurs throughout the Indo-Australian Region, from India to the Philippines, the Moluccas, New Guinea, Australia and the Solomon Islands (Parsons 1998). Parsons (1998) showed that *Cephrenes* contains eight species, of which two are presently known to occur in Australia (Lyons 1999, Braby 2000) and five are recorded from Papua New Guinea (Parsons 1998).

Most Cephrenes are robust insects with orange and black markings and are fast flyers (Parsons 1998). The adults can be confused with those of other closely related genera, in particular Telicota Moore and Sabera Swinhoe, but can be distinguished from these by the absence of a sex brand in the male, the antennae being about half the length of the forewing costa, the apical segment of the labial palpus being very short and stout and the forewing vein CuA₂ arising nearer to the cell base than to its apex (Parsons 1998). Male genitalia structures of Cephrenes are also distinctive (Parsons 1998).

The life histories of the two species that occur in Australia are well known (Lyons 1999, Braby 2000), the other six species much less so (Parsons 1998). All *Cephrenes* are known or suspected to feed on palms (Arecaceae).

In 2001, a series of skippers was collected on Saibai and Dauan Islands in the northern sector of Torres Strait, Queensland and these resembled a *Cephrenes* species previously unrecorded from Australia (Braby 2000). Using the taxonomic key and genitalia illustration in Evans (1949) and illustrations in Parsons (1998), these specimens have now been identified as *C. moseleyi* (Butler). In this paper, the identification of this species is discussed, both sexes are illustrated and field observations are provided.

Depository abbreviations are: CEMC - collection of C.E. Meyer, Canberra; TLIKC - joint collections of T.A. Lambkin and A.I. Knight, Brisbane; SSBC - collection of S.S. Brown, Bowral.



Figs 1-2. Cephrenes moseleyi (Butler). (1) male: upperside [left], underside [right], forewing length 19 mm, Saibai Island, 19.iv.2001, A.I. Knight (TLIKC); (2) female: upperside [left], underside [right], forewing length 21 mm, Dauan Island, 13.iv.2001, A.I. Knight (TLIKC).

Cephrenes moseleyi (Butler)

(Figs 1-2)

Material examined. QUEENSLAND: 1 O', Saibai Island, Torres Strait, 19.iv.2001, A.I. Knight (in TLIKC); 1 O', Saibai Island, Torres Strait, ex larva, emerged 28.iv.2001, C.E. Meyer (in CEMC); 2 PP, Saibai Island, Torres Strait, 6.v.2001, A.I. Knight (in TLIKC); 1 O', Dauan Island, Torres Strait, 13-16.iv.2001, S.S. Brown (in SSBC); 2 PP, Dauan Island, Torres Strait, 13.iv.2001, 14.v.2001, A.I. Knight (in TLIKC).

Comments. Cephrenes moseleyi resembles C. trichopepla (Lower) in colouring but has a general shape closer to C. augiades (C. Felder). Evans (1949) discerned two groups within the genus, based on the apical shape of the uncus. The group containing C. trichopepla has the uncus tridentate while the uncus from the group containing C. augiades and C. moselevi is bidentate. Furthermore, C. moseleyi is larger than the other two Australian species, the upperside forewing dark border of both sexes is solid and the valvae are symmetrical and deeply excavate at the ends (Evans 1949). All specimens examined showed little variation and were as in Figures 1-2. Parsons (1998) reported that C. moselevi occurs widely across the Papua New Guinea mainland and on many of the PNG island groups, including Bougainville. He described it as being generally rare but occasionally common frequenting areas where its primary host, Cocos nucifera (coconut palm), grows. Its appearance on Saibai and Dauan Islands is not surprising considering the islands' proximity to the southern Papuan coastline (five and ten kilometres respectively) and the widespread occurrence of Cocos nucifera throughout the region.

Field observations

All specimens of *C. moseleyi* from Saibai and Dauan were collected in the vine scrub / mangrove transitional zones that occur widely on both islands. Within this particular vegetation zone *Cocos nucifera* grows commonly. Both sexes of *C. moseleyi* were observed throughout the day, most often flying low to the ground with a typical rapid and jerky flight in sunlit glades, where they frequently settled on mangrove foliage or branches. They were also collected flying around blossom (S.S. Brown, personal communication). C.E. Meyer (personal communication) found a mature larva of *C. moseleyi* on Saibai feeding on the foliage of a juvenile *Cocos nucifera* close to the water's edge. His description of the larva matched the illustration of the larva of *C. moseleyi* in Parsons (1998).

Acknowledgements

We thank the local community councils of Saibai and Dauan Islands for their cooperation during the time spent on their islands. S.S. Brown and C.E. Meyer provided their material for examination and their notes on field observations. J.S. Bartlett gave valuable assistance with preparation of the colour plate.

References

BRABY, M.F. 2000. Butterflies of Australia: their identification, biology and distribution. CSIRO Publishing, Collingwood, Victoria; xx + 976 pp.

EVANS, W.H. 1949. A catalogue of the Hesperiidae from Europe, Asia and Australia in the British Museum. Trustees of the British Museum (Natural History), London; xix + 502 pp, 53 pls.

LYONS, K.A. 1999. The palm darts, *Cephrenes augiades* and *C. trichopepla* (Hesperiidae). Pp 105-114, in: Kitching, R.L., Scheermeyer, T., Jones, R.E. and Pierce, N.E. (eds), *Biology of Australian butterflies. Monographs on Australian Lepidoptera*, Vol. 6. CSIRO Publishing, Collingwood, Victoria; xvi + 395 pp.

PARSONS, M.J. 1998. The butterflies of Papua New Guinea: their systematics and biology. Academic Press, London; xvi + 736 pp, xxvi + 136 pls.